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EXAMINER	
SALTARELLI, DOMINIC D	

ART UNIT	PAPER NUMBER
2611	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/600,447	FILISAN, ANDREA POLO	
	Examiner	Art Unit	
	Dominic D Saltarelli	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 October 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 32 is objected to because of the following informalities: On line 2, "claim 29" should read --claim 31--.

3. Claim 33 is objected to because of the following informalities: On line 2, "claim 29" should read --claim 32--.

4. Claim 43 is objected to because of the following informalities: On line 2, "claim 43" should read --claim 42--.

5. Claim 44 is objected to because of the following informalities: On line 2, "claim 41" should read --claim 42--.

6. Claim 52 is objected to because of the following informalities: On lines 1-2, "... for the distribution to a condominium and/or community environment" is inconsistent with claim 27, and should be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 3, 5, 7-9, 12-24, 27, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson (4,901,367).

Regarding claim 1, Nicholson discloses a system (fig. 1) for the distribution to a community environment (col. 1, lines 19-40) of a plurality of television signals being transmitted (from program sources 40, col. 4, lines 30-42), in particular being transmitted according to different standards (as shown in fig. 5, because different transmission types, local broadcasts and satellite, operate according to respective standards, and the standard used to transmit satellite broadcasts is not the same as the one used for transmitting local broadcasts), comprising means for receiving the signals (fig. 5, program sources include local broadcasts, satellite programming, and pay-per-view programming, thus the receiving means include a cable and/or antenna receiver in addition to a satellite receiver), means for the amplification (fig. 2, amplifier) and the frequency

conversion of said signals (RSPC 2 in fig. 3, which demodulate then remodulate signals from broadcast source onto personal channels, col. 4, lines 30-42), means for the distribution of said signals (fig. 2, distribution cable 3) characterized in that a plurality of signals can be received by a single user of the system through a frequency conversion in a predetermined channel which can be accessed by said user only (col. 1, lines 18-24, col. 2, lines 51-60, and col. 5, lines 2-25), and in that the signal being present in said channel can be selected by said user through control means (fig. 3, remote control unit 33) which send a control signal to selection means (col. 5, lines 14-25).

Nicholson fails to disclose the signals are digital.

Examiner takes official notice that it is notoriously well known in the art to transmit information signals digitally, as digital transmissions are more robust and compressable.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson to receive and distribute digital information signals, as digital information signals are more robust, as they are less susceptible to attenuation and often include error correction as well, and compressable, such as MPEG encoding which greatly reduces the bandwidth required to transmit video information.

Regarding claim 3, Nicholson discloses the system of claim 1, wherein the distribution network is composed of coaxial cable (fig. 2, feeder cable 3, col. 4 lines 30-36).

Regarding claims 5, 7, and 8, Nicholson discloses the system of claim 1, but fails to disclose the personal channel is 8 MHz wide and the personal channel is contained in a frequency band between 230-445 MHz.

The assignment of bandwidth for a personal channel bandwidth and the frequencies at which the personal channel is resident are at the discretion of the designer but limited by the transmission medium, FCC regulations, and the amount of data to transmit from one point to another.

It would have been obvious at the time to a person of ordinary skill in the art to limit the personal channel to 8 MHz wide, as this would allow more personal channels to be carried over the distribution network (as Nicholson originally teaches using 12 MHz wide channels, as the bandwidth filter 23 used for isolating a personal channel is a 12 MHz bandwidth filter), and placing said personal channel in the 230-445 MHz range is beneficial for the lower attenuation experienced by signals placed in said range as opposed to placing them in higher frequency ranges.

Regarding claim 9, Nicholson discloses the system of claim 1, wherein filter means are provided which operate where the signal distribution means distribute the signals to the single user (fig. 3, filter 23).

Regarding claim 12, Nicholson discloses the system of claim 1, wherein selection of the digital signal to be converted in said predetermined channel is performed by a return channel ("user's assigned transmit channel", col. 5, lines 14-25).

Regarding claims 13-17, Nicholson discloses the system of claim 12, but fails to disclose the return channel is FSK, PSK, QPSK, or QAM modulated, or bi-directional under TDMA procedure.

Examiner takes official notice that FSK, PSK, QPSK, and QAM modulation, and TDMA multiplexing are all notoriously well known in the art as methods for transmission of digital data, each having particular benefits associated with each.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson to modulate the return channel using FSK, PSK, QPSK, or QAM procedures or bi-directional under TDMA procedure, as each has particular advantages associated with each, such as the robustness (resistance to noise) of QPSK modulation, or the transmission

efficiency (high bit rate) of QAM, or the bandwidth conservation of TDMA (which allows multiple digital channels to be multiplexed onto a single physical channel).

Regarding claim 18, Nicholson discloses the system of claim 12, but fails to disclose the return channel has a bandwidth of 128 KHz.

Examiner takes official notice that it is notoriously well known in the art to designate return channel bandwidth as 128 kHz bands, as this is a part of the DVB-RC (digital video broadcasting-return channel) standard.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson and Hamlin to limit the return channel bandwidth to 128 KHz so as to conform to the DVC-RC standard, an established and agreed upon standard for transmitting digital video, assuring hardware compliance among devices in a system, thus alleviating the need for specialized, custom equipment.

Regarding claim 19, Nicholson discloses the system of claim 12, but fails to disclose the return channel is between 41 and 46.5 MHz.

Examiner takes official notice that it is notoriously well known to place return channels in the 5-50 MHz range, as frequencies beyond this range are utilized for higher bandwidth, downstream communications.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson and Hamlin to place the return

channel between 41 and 46.5MHz, as it is conventional to place return channels in cable distribution networks in the 5-50 MHz range.

Regarding claim 20, Nicholson discloses the system of claim 12, wherein the return channel uses the same coaxial cable of the distribution network of the system (col. 5, lines 14-25).

Regarding claim 21, Nicholson discloses the system of claim 12, wherein the return channel used by a user is not accessible to all other users of the system (Nicholson teaches return channels are assigned to particular users for exclusive use, col. 5, lines 20-23 and col. 1, lines 22-24).

Regarding claim 22, Nicholson discloses the system of claim 12, wherein the return channel is radio frequency irradiated (Nicholson teaches upstream information is radio frequency modulated signals transmitted over the user allocated transmit channel, col. 5, lines 51-55).

Regarding claim 23, Nicholson discloses the system of claim 1, wherein the selection, modulation, and frequency conversion in a predetermined channel of the digital signal are obtained by means of a transmodualtor (RSPC 3 in fig. 3, col. 4 line 59 – col. 5 line 13).

Regarding claim 24, Nicholson discloses the system of claim 1, wherein a user terminal (fig. 4, office terminal 4) and an IRD receiver-decoder (fig. 4, TV receiver 25) are provided, which can be operated by a same remote control (fig. 4, remote control unit 33, controls all communications, both video which is received by receiver 25 and data which is receiver by modem 26 in the office terminal 4, col. 5 lines 14-25 and col. 6 lines 19-36).

Regarding claim 27, Nicholson discloses a system (fig. 1) for the distribution of a plurality of television signals being transmitted (from program sources 40, col. 4, lines 30-42), by air and/or cable and satellie (as shown in fig. 5), comprising means for receiving the signals (fig. 5, program sources include local broadcasts, satellite programming, and pay-per-view programming, thus the receiving means include a cable and/or antenna receiver in addition to a satellite receiver), means for the amplification (fig. 2, amplifier) of said signals, means for the distribution of said signals (fig. 2, distribution cable 3), characterized in that filter means (fig. 3, filter 23) are provided to prevent a passage of a portion of said signals to all users (in the event that there are more channels available than users, the unused channels would be blocked by said filter means to all users, as users are only allowed to access their respective assigned channels, col. 1, lines 19-24 and col. 5, lines 4-6, 14-24) and filter means (fig. 3, filter 23) for allowing the passage of said portion of said signals only to one user (in the event that a

previously unassigned channel is assigned to a user, the filter means would then allow said user to access said channel).

Nicholson fails to disclose the signals are digital.

Examiner takes official notice that it is notoriously well known in the art to transmit information signals digitally, as digital transmissions are more robust and compressable.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson to receive and distribute digital information signals, as digital information signals are more robust, as they are less susceptible to attenuation and often include error correction as well, and compressable, such as MPEG encoding which greatly reduces the bandwidth required to transmit video information.

Regarding claim 52, Nicholson discloses the system according to claim 27, wherein said filter means (fig. 3, filter 23) are apt to prevent the passage of signals generated inside a further distribution network associated to a single user (said filters only allow user designated frequency bands, and thus all other frequencies, including upstream ingress, are blocked by said filter).

9. Claims 26 and 28-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson as applied to claim 1 above, and further in view of Hamlin (5,574,964).

Regarding claim 26, Nicholson disclose the system of claim 1, but fails to disclose received signals are remodulated according to a sole type of modulation for distribution to the users of the system.

In an analogous art, Hamlin teaches a local video distribution system (fig. 1) wherein multiple signals with multiple transmission standards are received (fig. 1, terrestrial antenna 24, satellite receiver 26, cable connection 30, telephone line 37), demodulated (via demodulators 101, 102, 103 in fig. 2), and then remodulated (via remodulator 104 in fig. 2) into a sole type of modulation (signals are all converted into a common format, col. 3, lines 3-54). The benefit of such a system is to utilize a preexisting network to distribute multiple signals received in differing formats without requiring unique receiver equipment at the different reception sites (col. 1 line 65 – col. 2 line 7).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson to demodulate and then remodulate received signals into a sole type of modulation, as taught by Hamlin, for the benefit of distributing multiple signals received in differing formats, for greater flexibility in programming offered to users, without requiring unique receiver equipment at the different reception sites.

Regarding claim 28, Nicholson discloses the system of claim 1, but fails to disclose two or more selection means are contained in a sole transmodulator device.

In an analogous art, Hamlin teaches placing the components for receiving and remodulating signals of different transmission formats into a sole transmodulator device (fig. 2 contains the demodulation and remodulation devices all within converter 34, col. 3, lines 24-54), for an economic means to transmodulate multiple received signals in a modular fashion (only the demodulation portions need to be added when upgrading the system, col. 3, lines 47-54).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson to place the plural selection means within a single transmodulator device, as taught by Hamlin, for the benefit of maintaining the modularity of the system in an economic fashion (only the receiving and demodulation portions need to be added to expand the system, output hardware is shared and does not need to be duplicated when expanding the system).

Regarding claims 29 and 30, Nicholson and Hamlin disclose the system of claim 28, wherein the sole transmodulator device comprises plural tuner means apt to perform the selection of digital signals within at least two frequency ranges (Nicholson, fig. 3, tuner 16, wherein there is one tuner per customer as there is one RSPC per customer, col. 4, lines 30-42), and plural demodulation means apt to demodulate at least two of said digital signals (Nicholson, fig. 3, demodulator 17, wherein there is one demodulator per customer as there is one RSPC per

customer, col. 4, lines 30-42) transmitted with different standards (different transmission types require different standards, Nicholson, fig. 5 and Hamlin, col. 3, lines 3-12).

Regarding claim 31, Nicholson and Hamlin disclose the system of claim 29, wherein said transmodulator device includes a commutator (Hamlin, fig. 2, input to remodulator 104) apt for receiving the digital signals coming from the demodulators.

Regarding claims 32 and 33, Nicholson and Hamlin disclose the system of claim 31, wherein the transmodulator comprises a modulator (Hamlin, fig. 2, remodulator 104) for remodulating the output of the communator and a converter (also part of remodulator 104, prior to output from output interface 59, Hamlin, fig. 2) for converting in frequency the final output into a predetermined channel (Hamlin, col. 3, lines 24-54).

Regarding claim 34, Nicholson and Hamlin disclose the system of claim 1, wherein control means (Nicholson, fig. 2, remote control 33) are apt to generate digital upstream signals and convert them in frequency into the predetermined channel which can be accessed by said user only (Nicholson, col. 5, lines 51-55), and that second selection and handling means (Nicholson, transmit switch 14 in fig. 6) are provided for said digital signals in transmission (Nicholson teaches the

selection means is used for communication of internal signals with outside sources, col. 6, lines 3-10), and means (Nicholson, col. 6, lines 3-10, CATV, SMATV, microwave or fiber optic link) for the transmission of said upstream signals from satellite or by cable.

Regarding claim 35, Nicholson and Hamlin disclose the system of claim 34, wherein the transmodulator means and the second selection means both operate on downstream and upstream signals under SCPC procedure (wherein SCPC stands for single channel per carrier, and Nicholson teaches all upstream and downstream communications take place on user allocated channels, col. 5, lines 4-25, wherein the individual channels are specific to particular frequency bands).

Regarding claim 36, Nicholson and Hamlin disclose the system of claim 34, wherein said personal channel utilizes the FDMA procedure (Nicholson teaches the users personal channel is a 12 MHz band spit into a downstream band and an upstream band, thus upstream and downstream signals are simultaneously present in said personal channel, col. 1, lines 22-27).

Regarding claim 37, Nicholson and Hamlin disclose the system of claim 36, wherein the upstream and downstream signals occupy non-overlapping

frequency bands (Nicholson teaches upstream and downstream communication occur on simultaneously on two distinct TV channels, col. 1, lines 22-24).

Regarding claim 38, Nicholson and Hamlin disclose the system of claim 34, but fail to disclose the personal channel is used under time division multiple access (TDMA) procedure.

Examiner takes official notice that it is notoriously well known in to art to define channels using TDMA, as TDMA conserves bandwidth.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson and Hamlin to use the personal channel un TDMA procedure, as TDMA is an effective means to increase the number of channels available on a given bandwidth, more efficiently utilizing said bandwidth.

Regarding claim 39, Nicholson and Hamlin disclose the system of claim 34, but fail to disclose the selection means and selection and handling means are contained in the same container.

Examiner takes official notice that placement of physical devices in the same physical container is a convenient placement of hardware, as it is compact, and thus conserves space.

It would have been obvious to a person of ordinary skill in the art to modify the system of Nicholson and Hamlin to place the first and second selection means in the same container for convenience and space conservation.

10. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson as applied to claim 1 above, and further in view of Yoshida (4,823,361).

Regarding claims 2 and 6, Nicholson discloses the system of claim 1, but fail to disclose the digital signal being present in said channel is a Quadrature Amplitude Modulation (QAM) signal.

In an analogous art, Yoshida teaches QAM is widely used in radio frequency transmissions for its high transmission efficiency (col. 1, lines 10-15).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson to modulate the information signals using QAM, as taught by Yoshida, for the benefit of the high transmission efficiency of information signals achieved using QAM.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson as applied to claim 1 above, and further in view of Macdonald et al. (5,835,128) [Macdonald].

Regarding claim 4, Nicholson and Hamlin disclose the system of claim 1, but fail to disclose the distribution network comprises MMDS or LMDS networks.

In an analogous art, Macdonald teaches a video distribution system wherein video signals are redistributed via wireless MMDS or LMDS networks (col. 4, lines 5-18), wherein wireless video distribution is free from geographic limitations and do not require any special medium for transmission of signals.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson to utilize MMDS or LMDS networks for the distribution of information signals, as taught by Macdonald, for the benefit of free distribution of signals without regard to geographic limitations and without relying on costly cables or wiring which is subject to wear and breakage.

12. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson as applied to claim 1 above, and further in view of Dufresne et al. (4,982,440) [Dufresne].

Regarding claims 10 and 11, Nicholson discloses the system of claim 1, wherein the system includes filtering means (fig. 3, bandwidth filter 23) and personal channels (col. 5, lines 4-6), but fail to disclose the filtering means includes a band stop filter to apt to eliminate reception of personal channels by a receiver in parallel with a channel pass filter apt to let a personal channel through to a single user.

In an analogous art, Dufresne teaches a video distribution system (fig. 3) wherein particular downstream information is routed through a first filter in the

downstream direction (fig. 4, filter 13, col. 7, lines 40-50) and is connected in parallel with a second filter (fig. 4, filter 16) for preventing undesired upstream noise (col. 7 line 60 – col. 8 line 12).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson to include in the filtering means parallel filters, one for band pass functionality and the other for band rejection functionality, as taught by Dufresne, wherein the first filter is apt to let a personal channel through to a single user, as it's function is to allow downstream signals to pass through while blocking upstream signals, and the second filter is apt to eliminate the reception of personal channels as it blocks all downstream signals in addition to blocking upstream noise. The benefit of this arrangement is to selectively allow for the reception of a particular user channel in the downstream direction while also blocking any upstream noise, wherein upstream noise by nature would include locally generated signals that do not belong on the upstream path.

13. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson as applied to claim 1 above, and further in view of Hamlin and Dufresne.

Regarding claim 25, Nicholson discloses the system of claim 1, characterized in that it includes means for the amplification (fig. 2, amplifier) and frequency conversion of received signals, transmodulator means (fig. 3, RSPC 2, col. 4 line 67 – col. 5 line 13), a signals mixer (fig. 2, combiner 21), a transponder

preselection circuit (for receiving satellite communications, fig. 5, col. 5, lines 56-62), a selection circuit of digital signals by cable (for when the digital signals are received by cable, this circuit is the RSPC in fig. 3), and a user terminal (fig. 4, office terminal 4) to where there are associated a remote control device (fig. 4, remote control 33), an IRD receiver decoder (fig, 4, converter 24, col. 5, lines 26-37), and an image display (fig. 4, TV 25).

Nicholson fails to disclose receiving both analog and digital television signals and a band stop filter in parallel to a channel pass filter.

In an analogous art, Hamlin teaches receiving both analog and digital signals (conventional broadcasts and an ADSL connection, col. 2 line 54 – col. 3 line 2), receiving a great variety of signals for use.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson to include receiving both analog and digital signals, as taught by Hamlin, for the benefit of increasing the variety of signals available to customers.

Nicholson and Hamlin fail to disclose a band stop filter in parallel to a channel pass filter.

In an analogous art, Dufresne teaches a video distribution system (fig. 3) wherein particular downstream information is routed through a first filter in the downstream direction (fig. 4, filter 13, col. 7, lines 40-50) and is connected in parallel with a second filter (fig. 4, filter 16) for preventing undesired upstream noise (col. 7 line 60 – col. 8 line 12).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson and Hamlin to include in the filtering means parallel filters, one for band pass functionality and the other for band rejection functionality, as taught by Dufresne, wherein the first filter is apt to let a personal channel through to a single user, as it's function is to allow downstream signals to pass through while blocking upstream signals, and the second filter is apt to eliminate the reception of personal channels as it blocks all downstream signals in addition to blocking upstream noise. The benefit of this arrangement is to selectively allow for the reception of a particular user channel in the downstream direction while also blocking any upstream noise, wherein upstream noise by nature would include locally generated signals that do not belong on the upstream path.

14. Claims 40-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson as applied to claim 1 above, and further in view of Saward (5,537,473) and Diehl et al. (5,835,864) [Diehl].

Regarding claim 40, Nicholson discloses the system of claim 1, but fails to disclose the control means (office terminal 4 in fig. 4 is under control of remote control 33) is apt to perform an access function to a plurality of conditioned access services by reading the information contained in a smart card, and that said information contained in said smart card controls the selection of said predetermined channel which can be accessed by said user only.

In an analogous art, Saward discloses utilizing a smart card to control a receiver in allowing said receiver to receive conditional services by reading information stored in said smart card (col. 3, lines 1-30), providing a highly secure means by which customers may receive conditional access programming.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson to include accessing a plurality of conditional access services by reading information contained in a smart card, as taught by Saward, for the benefit of providing a highly secure means by which customers may receive conditional access programming, as smart cards are unique to individual users and highly resistant to tampering.

Nicholson and Saward fail to disclose said information contained in said smart card further controls the selection of said predetermined channel which can be accessed by said user only channel.

In an analogous art, Diehl teaches using information stored on a smart card (in EEPROM memory, col. 3, lines 3-6) to program frequency conversion means (col. 2 line 49 – col. 3 line 11), for the benefit of easily and dynamically programming receiver equipment according to the desired configuration of the users (col. 1, lines 50-62).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Nicholson, Hamlin, and Saward to include controlling the selection of said predetermined channel using information in said smart card, as taught by Diehl, for the benefit of easily and dynamically

programming receiver equipment according to the desired configuration of the users, allowing the economic use of common receiver equipment at a plurality of sites.

Regarding claims 41-45, Nicholson, Saward, and Diehl disclose the system of claim 40, wherein said information contained in said smart card comprises information for tuning the transmodulator means and transponder preselection means (Diehl teaches the information includes channel map information for proper tuning, col. 2 line 66 – col. 3 line 11, which would include information for proper tuning when the service is satellite television, one of the signal sources as disclosed by Nicholson, as shown in fig. 2).

Regarding claim 46, Diehl discloses the information stored on the smart card is for the purpose of dynamically programming common receiver equipment so that it may properly tune to designated channels depending on how the equipment is implemented (col. 2 line 49 – col. 3 line 11), and such a teaching also applies to programming a receiver with the personal channel of a particular user (Nicholson, user allocated frequencies, col. 1, lines 22-24, col. 4, lines 30-36, and col. 5, lines 20-23).

It would have been obvious at the time to a person of ordinary skill in the art to further modify the system disclosed by Nicholson, Saward, and Diehl to include in said information stored on said smart card, frequency information so

said personal channel, as taught by Diehl, for the benefit of easily and dynamically programming receiver equipment according to the desired configuration of the users, allowing the economic use of common receiver equipment at a plurality of sites.

Regarding claim 47, Nicholson, Saward, and Diehl disclose the system of claim 40, wherein the selection means and the smart card contain respective electronic keys, whose congruence enable the operation of said distribution system of a plurality of signals to a community environment (Saward teaches the smart card includes decryption keys, which are provided to reception equipment for decrypting signals to enable reception, col. 3, lines 20-27).

Regarding claim 48, Saward further discloses a device in a receiver (descrambler control circuit 22 in fig.3) which writes data in a program memory of a miroprocessor contained in the smart card ("off-air" update to stored information, col. 3, lines 20-30), which enables broadcasters to dynamically maintain the information used by customers for accessing services.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclose by Nicholson, Hamlin, Saward, and Diehl to include a device in said control means for writing data in a program memory of a microprocessor contained in the smart card, as taught by Saward, for the benefit of enabling broadcasters to dynamically maintain the information used by

customers for accessing services, such as for billing purposes and a convenient means by which customers may upgrade their service.

Regarding claim 49, Nicholson, Saward, and Diehl disclose the system of claim 48, wherein the program memory is and EEPROM type memory (Diehl, col. 3, lines 3-6).

Regarding claim 50, Nicholson, Saward, and Diehl disclose the system of claim 48, wherein the device for writing data in a program memory of a microprocessor contained in the smart card operates on data sent to the control means by modem (Nicholson teaches data communications are carried out using modems, col. 5, lines 38-44).

Regarding claim 51, Nicholson, Saward, and Diehl disclose the system of claim 48, wherein the device for writing data in a program memory of a microprocessor contained in the smart card operates on data sent to the control means by means of the service information contained in the received digital signal (the information being written to the smart card is service information, as they are customer access rights, as taught by Saward, and channel map information, as taught by Diehl).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 1-52 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-51 of copending Application No. 09/600,460. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are different definitions of the same subject matter varying in breadth.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

More specifically, claim 1 of the instant application corresponds to claims 1 and 3 of 09/600,460 in the following manner:

- In the instant application, claim 1, lines 1-4 include distributing "a plurality of television signals, and/or audio signals, and/or digital audio and /or video signals, in particular being transmitted according to different standards", which is synonymous with

application 09/600,460, claim 1, lines 1-3, which include transmitting "a plurality of digital signals according to different standards".

- In the instant application, claim 1, lines 4-8 include "means for receiving said signals...means for the amplification and the frequency conversion of said signals...means for the distribution of said signals", which is synonymous with application 09/600,460, claim 1, lines 4-6, which include "means for receiving said digital signals, means for the frequency conversion of said digital signals, means for mixing all said information signals on a distribution network".
- In the instant application, claim 1, lines 7-12 include "one or more digital signals can be received by a single user of the system through a frequency conversion in a predetermined channel which can be accessed by said user only, and in that the digital signal being present in said channel can be selected by said user through control means which send a control signal to selection means", which is synonymous with application 09/600,460, claim 3, read in full, which depends on claim 1.
- Thus, it would have been obvious to a person of ordinary skill in the art to modify the claimed invention of the instant application to correspond to the claimed invention in application 09/600,460, as

they are merely different definitions of the same subject matter, and vary only in breadth.

Claim 2 of the instant application corresponds to claim 2 of application 09/600,460.

Claim 3 of the instant application corresponds to claim 4 of application 09/600,460.

Claim 4 of the instant application corresponds to claim 5 of application 09/600,460.

Claim 5 of the instant application corresponds to claim 6 of application 09/600,460.

Claim 6 of the instant application corresponds to claim 2 of application 09/600,460.

Claims 7-24 of the instant application corresponds to claims 7-24 of application 09/600,460.

Claim 25 corresponds to claims 1, 10, 11, 23, 24, and 39 of application 09/600,460 in the following manner:

- In the instant application, claim 25, lines 1-4 include "a set of aerials for the reception of both analog and digital radio/television signals, means for the amplification and the frequency conversion of said signals", which is synonymous with application 09/600,460, claim 1, lines 4-5, which include "means for receiving said digital signals, means for the frequency conversion of said digital signals".

- In the instant application, claim 25, line 5 includes a transmodulator means (13,20), which is synonymous with application 09/600,460, claim 23.
- In the instant application, claim 25, line 5 includes a band stop filter (15), which is synonymous with application 09/600,460, claim 10.
- In the instant application, claim 25, line 5 includes a signals mixer (3), which is synonymous with application 09/600,460, claim 1, lines 5-6, "means (3) for mixing all said information signals".
- In the instant application, claim 25, line 6 includes a transponder preselection circuit (12), which is synonymous with application 09/600,460, claim 39, lines 3-4, which includes transponder means (12).
- In the instant application, claim 25, lines 6-7 include "a selection circuit of digital signals by cable (14)", which is synonymous with application 09/600,460, claim 1, lines 4-5, "means (13,14,20) for the frequency conversion of said digital signals"
- In the instant application, claim lines 8-9 include "a channel pass filter arranged in parallel to said band stop filter", which is synonymous with application 09/600,460, claim 11.
- In the instant application, claim 25, lines 9-13 include "a user terminal to which there are associated a remote control device, and

IRD receiver decoder, and an image display device", which is synonymous with application 09/600,460, claim 24.

- Thus, it would have been obvious to a person of ordinary skill in the art to modify the claimed invention of the instant application to correspond to the claimed invention in application 09/600,460, as they are merely different definitions of the same subject matter, and vary only in breadth.

Claim 26 of the instant application corresponds to application 09/600,460, claim 1 lines 8-15.

Claim 27 of the instant application corresponds to application 09/600,460, claims 1, 10, and 11.

- In the instant application, claim 27, lines 1-4 include "distribution of a plurality of radio/television signals...means for the picking up and/or reception of said signals...means for the amplification of said signals and means for the distribution of said signals" is synonymous with application 09/600,460, claim 1, lines 1-6.
- In the instant application, claim 27, lines 5-8, filter means (15) is synonymous with application 09/600,460, claim 10, and filter means (16) is synonymous with application 09/600,460, claim 11.
- Thus, it would have been obvious to a person of ordinary skill in the art to modify the claimed invention of the instant application to correspond to the claimed invention in application 09/600,460, as

they are merely different definitions of the same subject matter, and vary only in breadth.

Claims 28-52 of the instant application correspond to claims 25-49 of application 09/600,460.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Williams (5,970,386) and Stoel et al. (5,905,942).

17. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic D Saltarelli whose telephone number is (703) 305-8660. The examiner can normally be reached on M-F 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (703) 305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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